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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
LEWIS, DAVID LEE	
ART UNIT	**PAPER NUMBER**
2629	

NOTIFICATION DATE	DELIVERY MODE
05/14/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
jessica.l.fusek@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/782,706	CHILDERS, WINTHROP D.	
	Examiner	Art Unit	
	DAVID L. LEWIS	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on 1/27/2009 PROSECUTION IS HEREBY REOPENED. As set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

For the purpose of presenting a clear and concise prima facie case of anticipation that the applicant can fairly respond to, the rejection of representative claims 1, 7, 12, and 23 has been revised. Wherein the prima facie case for anticipation applied to claims 1, 7, 12, and 23, also apply to claims 1-46. The Finality of the office action filed on 9/9/2008 has been replaced with the following office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Cruz-Uribe et al. (6853486).

As in claim 1, Cruz-Uribe et al. teaches of a method of reducing a gray scale discontinuity between pixel locations in a blackened state on a contrast enhancing screen and pixel locations in a gradual shading region of an image displayed by a projector on said contrast enhancing screen, said discontinuity caused by ambient light, **figures 1, 3, and 4, column 3 lines 15-45, column 12 lines 39-51**, wherein an array of black and white pixel elements may be used to create the gradual shading region (column 12 lines 39-51) of the constrast enhancing screen 14, wherein the enhanced contrast of the projected image that may result from the use of an enhanced projection screen will improve the qualify of the displayed image, for example in conditions of low ambient light, By conditioning the reflectivity of the display surface with the content of the projected light.

said method comprising: measuring an intensity of said ambient light, **column 5 lines 48-55, column 6 lines 40-58**; wherein a photo-sensor 38 is responsive to

visible/no-visible light and measures both ambient light and control light projected from a projector,

comparing said measured ambient light intensity to an average intensity of light projected by said projector onto said gradual shading region, **column 5 lines 4-7 & 48-55, column 6 lines 40-58**; wherein the current from the photo-detector 38 may be averaged and is compared to a pre-set threshold or intensity level, wherein a threshold current value is used to distinguish the averaged ambient light from the averaged projected light, wherein for example because the threshold current is above the ambient light value, areas of the screen that contain only ambient light, can remain dark, having a quality contrast.

and generating apparent gray scale levels for pixels to be displayed in said pixel locations in said gradual shading region based on said comparison, **column 2 lines 55-67, column 3 lines 45-55, column 4 lines 10-25, column 6 lines 40-58**, wherein perceived gray scale is equivalent to apparent gray scale, and dithering or gray tones are alternatively selected to enhance the display contrast. Said gray tones being equivalent to half toning. Said pixel elements are perceived by the viewer as an intermediate reflectance state.

As in claim 2, Cruz-Uribe et al. teaches of, further comprising: selecting a dithering algorithm based on said comparison, column 4 lines 10-22, column 3 lines 45-55; wherein said step of generating said apparent gray scale levels uses said dithering algorithm to generate said apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region, column 4 lines 10-22, column 3 lines 45-55.

As in claim 3, Cruz-Uribe et al. teaches of, wherein said step of generating said apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region comprises: spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels to be displayed in said pixel locations in said gradual shading region, column 2 lines 55-67, column 3 lines 45-55, column 4 lines 10-25, column 6 lines 40-58; wherein said spatial and temporal dithering of said pixel blocks generates an apparent gray scale level for each of said pixel blocks, column 2 lines 55-67, column 3 lines 45-55, column 4 lines 10-25, column 6 lines 40-58.

As in claim 4, Cruz-Uribe et al. teaches of, wherein, during each of said number of frame periods, said step of spatially and temporally dithering said pixels comprises activating one or more of said plurality of pixel locations in each of said pixel blocks, column 4 lines 10-22.

As in claim 5, Cruz-Uribe et al. teaches of, wherein said pixel blocks each comprise four pixels, column 4 lines 10-22, column 12 lines 39-51.

As in claim 6, Cruz-Uribe et al. teaches of, wherein said number of frame periods is equal to two, column 4 lines 10-22, column 12 lines 39-51.

As in claim 7, Cruz-Uribe et al. teaches of method of operating a light engine configured to project light onto a group of pixel locations of a viewing surface

during a time period, **figures 1, 3, and 4**, **column 2 lines 35-40, column 5 lines 5-7 and 65-67,** wherein the light engine 20 is configured to project light on a screen 14

said method comprising: estimating an ambient light energy received by said group of pixel locations during said time period, **column 6 lines 40-58**; wherein a photo-detector 38 estimates an average ambient and projected light,

determining a threshold gray scale level of the light engine, **column 5 lines 38-41, column 6 lines 40-58**; wherein the threshold gray scale level of the light engine is determined based on current from the photo-detector being compared to a reference current to determine illumination of the photo-detector by the control image. Wherein a pre-set intensity level is represented by the reference current.

and dithering pixels having gray scale levels at or below said threshold gray scale level to be displayed in said group of pixel locations if said estimated ambient light energy is greater than or substantially equal to said threshold gray scale level, **column 3 lines 45-60, column 4 lines 11-22, column 6 lines 40-57**. wherein dithering or gray tones are alternatively selected to enhance the display contrast based on the comparison of said reference current to the measured ambient and projected current from the photo-detector. Said gray tones being equivalent to half toning and pixel elements are perceived by the viewer as an intermediate reflectance state.

As in claim 8, Cruz-Uribe et al. teaches of, further comprising measuring an ambient light intensity, wherein said step of estimating said ambient light energy is based on said measured ambient light intensity, **column 6 lines 40-57**.

As in claim 9, Cruz-Uribe et al. teaches of wherein said time period is one or more frame periods, **column 3 lines 45-60, column 4 lines 10-22, column 6 lines 40-57**.

As in claim 10, Cruz-Uribe et al. teaches of, wherein said time period is a portion of a frame period, **column 3 lines 45-60, column 4 lines 10-22, column 6 lines 40-57**.

As in claim 11, Cruz-Uribe et al. teaches of, wherein said step of dithering said pixels comprises spatially and temporally dithering pixel blocks during said time period, each of said pixel blocks comprising a plurality of said pixels to be displayed in said group of pixel locations, **column 3 lines 45-60, column 4 lines 10-22, column 6 lines 40-57**.

As in claim 12, Cruz-Uribe et al. teaches of a method of operating a light engine configured to generate and display an image on a viewing surface, said image formed by pixels having varying gray scale levels**, figures 1, 3, and 4**, **column 2 lines 35-40, column 5 lines 5-7 and 65-67, column 12 lines 39-51,** wherein the light engine 20 is configured to project light on a screen 14 having a gray scale shading regions represented in the form of an array of black and white pixel elements.

said method comprising: generating an estimate of an ambient light intensity level, **column 6 lines 40-58**; wherein a photo-detector 38 estimates an average ambient and projected light

and selecting between half-toning and dithering to generate said gray scale levels for each of said pixels in response to said estimated ambient light level, **column 2 lines 55-67, column 3 lines 45-55, column 4 lines 10-25, column 6 lines 40-58**, wherein dithering or gray tones are alternatively selected to enhance the display contrast based on the estimated ambient and projected light. Wherein said gray tones are equivalent to half toning and said pixel elements are perceived by the viewer as an intermediate reflectance state.

As in claim 13, Cruz-Uribe et al. teaches of a, wherein said step of generating said estimate of said ambient light intensity level comprises measuring said ambient light intensity level with an ambient light sensor and transferring said measured ambient light intensity level to said light engine, **column 6 lines 40-57**.

As in claim 14, Cruz-Uribe et al. teaches of, further comprising selecting a threshold gray scale level, wherein said dithering is selected to generate said gray scale levels for each of said pixels that is to have a gray scale level at or below said threshold gray scale level if said estimated ambient light energy is greater than or substantially equal to said threshold gray scale level, **column 3 lines 45-60, column 4 lines 1-35, column 6 lines 40-57**.

As in claim 15, Cruz-Uribe et al. teaches of, wherein said half-toning is selected to generate said gray scale levels for each of said pixels if said estimated ambient light energy is less than said threshold gray scale level **column 3 lines 45-60, column 4 lines 1-35, column 6 lines 40-57**.

As in claim 16, Cruz-Uribe et al. teaches of, wherein said dithering comprises spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels, **column 3 lines 45-60, column 4 lines 1-35, column 6 lines 40-57**.

As in claim 17, Cruz-Uribe et al. teaches of system for reducing a gray scale discontinuity between pixel locations in a blackened state on a contrast enhancing screen and pixel locations in a gradual shading region of an image displayed by a projector on said contrast enhancing screen, said discontinuity caused by ambient light, **figures 1, 3, and 4**,

said system comprising: an ambient light sensor configured to measure an intensity of said ambient light, **figure 4 item 38**;

an image processing unit configured to compare said measured ambient light intensity to an average intensity of light projected by said projector onto said gradual shading region, **figure 3 item 28**;

and a spatial light modulator configured to generate apparent gray scale levels for pixels to be displayed in said pixel locations in said gradual shading region

based on said comparison, **column 2 lines 40-54, figure 3 item 12**, **column 3 lines 45-60, column 4 lines 1-35, column 6 lines 40-57, column 12 lines 39-51**.

As in claim 18, Cruz-Uribe et al. teaches of, wherein said image processing unit is further configured to select a dithering algorithm based on said comparison and said spatial light modulator is further configured to use said dithering algorithm to generate said apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region, column 4 lines 1-23.

As in claim 19, Cruz-Uribe et al. teaches of, wherein said spatial light modulator is configured to generate apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region by spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels to be displayed in said pixel locations, **column 2 lines 40-54, figure 3 item 12**, **column 3 lines 45-60, column 4 lines 1-35, column 6 lines 40-57, column 12 lines 39-51**.

As in claim 20, Cruz-Uribe et al. teaches of, wherein said pixel blocks each comprise four pixels, column 4 lines 10-22, column 12 lines 39-51.

As in claim 21, Cruz-Uribe et al. teaches of, wherein said number of frame periods is equal to two, column 4 lines 10-22, column 12 lines 39-51.

As in claim 22, Cruz-Uribe et al. teaches of, wherein said spatial light modulator is selected from the group consisting of an analog based light modulator, a pulse-width modulation based light modulator, a liquid crystal display (LCD) panel, a liquid crystal on silicon (LCOS) device, a diffractive light device (DLD), and an array of micromirrors, column 2 lines 45-53.

As in claim 23, Cruz-Uribe et al. teaches of light engine for displaying an image having a gradual shading region on a contrast enhancing screen, **figures 1, 3, and 4, column 3 lines 15-45, column 12 lines 39-51**, wherein an array of black and white pixel elements may be used to create the gradual shading region (column 12 lines 39-51) of the constrast enhancing screen 14, wherein the enhanced contrast of the projected image from light engine 20 that may result from the use of an enhanced projection screen will improve the qualify of the displayed image, for example in conditions of low ambient light, by conditioning the reflectivity of the display surface with the content of the projected light.

said light engine comprising: a spatial light modulator configured to generate gray scale levels for pixels in said image, **figure 3 item 12, column 2 lines 45-53**;wherein the projector systems includes a light engine and light modulator element

projector optics configured to project light comprising said image onto said contrast enhancing screen, said projected light having an intensity, **figure 1 item 12, column 2 lines 45-53**; said projector 12

and an ambient light sensor configured to measure an intensity of ambient light reflecting off pixel locations in said contrast enhancing screen corresponding to said gradual shading region, **column 5 lines 20-40, column 6 lines 40-57, column 12 lines 39-51**; wherein photo detector 38 measures the ambient and projected light from the gradual shading region of the screen 14, said gradual shading region represented by an array of black and white pixel elements.

wherein said spatial light modulator reduces a gray scale discontinuity caused by said ambient light between pixel locations in a blackened state on said contrast enhancing screen and said pixel locations in said gradual shading region by generating apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region based on a comparison between said measured ambient light intensity and said projected light intensity, **figure 1 item 12, column 2 lines 40-67, column 3 lines 45-60, column 4 lines 10-25, column 6 lines 40-58, column 12 lines 39-51**, wherein perceived gray scale is equivalent to apparent gray scale, and dithering or gray tones are alternatively selected to enhance the display contrast. Said gray tones being equivalent to half toning. Said pixel elements are perceived by the viewer as an intermediate reflectance state.

As in claim 24, Cruz-Uribe et al. teaches of, wherein said light engine further comprises: an image processing unit configured to select a dithering algorithm based on said comparison, figure 3 item 28; wherein said spatial light modulator is further configured to use said dithering algorithm to generate said gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region, column 4 lines 1-35.

As in claim 25, Cruz-Uribe et al. teaches of, wherein said dithering algorithm comprises spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels to be displayed in said pixel locations in said gradual shading region, column 4 lines 1-35.

As in claim 26, Cruz-Uribe et al. teaches of, wherein said number of frame periods is equal to two, column 4 lines 10-22, column 12 lines 39-51.

As in claim 27, Cruz-Uribe et al. teaches of, wherein said spatial light modulator is selected from the group consisting of an analog based light modulator, a pulse-width modulation based light modulator, a liquid crystal display (LCD) panel, a liquid crystal on silicon (LCOS) device, a diffractive light device (DLD), and an array of micromirrors, column 2 lines 45-53.

As in claim 28, Cruz-Uribe et al. teaches of projector system for displaying an image on a viewing surface, **figures 1, 3, and 4**,

said system comprising: a light engine configured to generate pixels having gray scale levels to be displayed in corresponding pixel locations on said viewing surface, **figure 1 item 20**;

and an ambient light sensor configured to measure an intensity of ambient light reflecting off said pixel locations on said viewing surface, **figure 4 item 38**;

wherein said light engine is further configured to receive said measured ambient light intensity from said ambient light sensor and select between a half-toning algorithm and a dithering algorithm to generate said gray scale levels for each of said pixels based on said measured ambient light intensity, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58**.

As in claim 29, Cruz-Uribe et al. teaches of, wherein said dithering algorithm is selected to generate said gray scale levels for each of said pixels that is to have a gray scale level at or below a predetermined threshold gray scale level if said estimated ambient light energy is greater than or substantially equal to said threshold gray scale level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58**.

As in claim 30, Cruz-Uribe et al. teaches of, wherein said half-toning algorithm is selected to generate said gray scale levels for each of said pixels if said estimated ambient light energy is less than said threshold gray scale level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58**.

As in claim 31, Cruz-Uribe et al. teaches of, wherein said dithering algorithm comprises spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels to be displayed in said pixel locations in said gradual shading region, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58**.

As in claim 32, Cruz-Uribe et al. teaches of, wherein said number of frame periods is equal to two¸4 lines 10-22, column 12 lines 39-51.

As in claim 33, Cruz-Uribe et al. teaches of, wherein said light engine comprises a spatial light modulator configured to generate said gray scale levels of said pixels, column 2 lines 45-53.

As in claim 34, Cruz-Uribe et al. teaches of, wherein said spatial light modulator is selected from the group consisting of an analog based light modulator, a pulse-width modulation based light modulator, a liquid crystal display (LCD) panel, a liquid crystal on silicon (LCOS) device, a diffractive light device (DLD), and an array of micromirrors, column 2 lines 45-53.

As in claim 35, Cruz-Uribe et al. teaches of, wherein said viewing surface comprises a contrast enhancing screen, figure 3 item 14.

As in claim 36, Cruz-Uribe et al. teaches of system for reducing a gray scale discontinuity between pixel locations in a blackened state on a contrast enhancing screen and pixel locations in a gradual shading region of an image displayed by a projector on said contrast enhancing screen, said discontinuity caused by ambient light, **figures 1, 3, and 4, column 3 lines 15-45, column 12 lines 39-51**,

said system comprising: means for measuring an intensity of said ambient light, **figure 4 item 38**;

means for comparing said measured ambient light intensity to an average intensity of light projected by said projector onto said gradual shading region, **figure 3 item 28**;

and means for generating apparent gray scale levels for pixels to be displayed in said pixel locations in said gradual shading region based on said comparison, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58.**

As in claim 37, Cruz-Uribe et al. teaches of, further comprising: means for selecting a dithering algorithm based on said comparison, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**; wherein said means for generating said apparent gray scale levels uses said dithering algorithm to generate said apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 38, Cruz-Uribe et al. teaches of, wherein said means for generating said apparent gray scale levels for said pixels to be displayed in said pixel locations in said gradual shading region comprises: means for spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels to be displayed in said pixel locations in said gradual shading region, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**;

wherein said means for spatial and temporal dithering of said pixel blocks generates an apparent gray scale level for each of said pixel blocks, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 39, Cruz-Uribe et al. teaches of, wherein, during each of said number of frame periods, said means for spatially and temporally dithering said pixels comprises means for activating one or more of said plurality of pixel locations in each of said pixel blocks, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 40, Cruz-Uribe et al. teaches of system for operating a light engine configured to project light onto a group of pixel locations of a viewing surface during a time period, **figures 1, 3, and 4**,

said system comprising: means for estimating an ambient light energy received by said group of pixel locations during said time period, **figure 4 item 38**;

means for determining a threshold gray scale level of said light engine, **figure 3 item 28**;

and means for dithering pixels having gray scale levels at or below said threshold gray scale level to be displayed in said group of pixel locations if said estimated ambient light energy is greater than or substantially equal to said threshold gray

scale level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 41, Cruz-Uribe et al. teaches of, further comprising means for measuring an ambient light intensity, wherein said means for estimating said ambient light energy is based on said measured ambient light intensity**, column 5 lines 20-40, column 6 lines 40-58.**

As in claim 42, Cruz-Uribe et al. teaches of system for operating a light engine configured to generate and display an image on a viewing surface, said image formed by pixels having varying gray scale levels, **figures 1, 3, and 4, column 3 lines 15-45, column 12 lines 39-51**

said system comprising: means for generating an estimate of an ambient light intensity level, **figure 4 item 38**;

and means for selecting between a half-toning means and a dithering means to generate said gray scale levels for each of said pixels in response to said estimated ambient light level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 43, Cruz-Uribe et al. teaches of, wherein said means for generating said estimate of said ambient light intensity level comprises means for measuring said ambient light intensity level, figure 4 item 38.

As in claim 44, Cruz-Uribe et al. teaches of, further comprising means for selecting a threshold gray scale level, wherein said dithering means is selected to generate said gray scale levels for each of said pixels that is to have a gray scale level at or below said threshold gray scale level if said estimated ambient light energy is greater than or substantially equal to said threshold gray scale level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 45, Cruz-Uribe et al. teaches of, wherein said half-toning means is selected to generate said gray scale levels for each of said pixels if said estimated ambient light energy is less than said threshold gray scale level, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

As in claim 46, Cruz-Uribe et al. teaches of, wherein said dithering means comprises spatially and temporally dithering pixel blocks during a number of frame periods, each of said pixel blocks comprising a plurality of said pixels, **column 3 lines 45-55, column 4 lines 1-35, column 5 lines 20-40, column 6 lines 40-58, column 12 lines 39-51**.

Response to Arguments

2. Applicant's arguments filed 1/27/2009 have been fully considered and are in part persuasive. **Because the Examiner has failed to provide the applicant with a clear and concise prima facie case for anticipation, the finality of the office**

action filed on 9/9/2008 is withdrawn and replaced with the following Final Action. The claims remain anticipated by Cruz-Uribe. The rejection of claim 1 which is representative of the subject matter found in claims 17, 23, and 36 has been revised. The rejection of clam 7 which is representative of the subject matter found in claim 40 has been revised. The rejection of claim 12 which is representative of the subject matter found in claims 28 and 42 has been revised. The rejection of claim 23 has additionally been revised. Wherein the prima facie case for anticipation applied to claims 1, 7, 12, and 23, also apply to claims 1-46.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis

May 10, 2009

/David L Lewis/

Examiner, Art Unit 2629